

CLAIMS

1. A trunnion assembly for a gun comprising:

- a trunnion shaft;
- a housing defining a bore for rotatably and concentrically receiving the trunnion shaft; and
- a bearing assembly located inside the housing and surrounding the trunnion shaft,

the trunnion assembly according to the present invention being

10 characterised in that the longitudinal axis of the shaft is movable out of alignment with the longitudinal axis of the bore when the shaft is biased in a direction transverse the said longitudinal axes by the impetus caused by the rearward movement of the gun when the gun is fired, and in that the bearing assembly allows rotation of the shaft in the bore whilst 15 also allowing the said movement of the longitudinal axis of the shaft out of alignment with the longitudinal axis of the bore, and in that the bearing assembly further includes a re-aligning means for re-aligning the longitudinal axes of the shaft and the bore, after the said movement out of alignment.

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2. A trunnion assembly according to claim 1 wherein the re-alignment means is in the form of a ball bearing assembly also located inside the bore of the housing and surrounding the trunnion shaft and wherein the

ball-bearing assembly includes a central ball bearing and two resiliently compressible O-rings disposed on opposite sides of the ball bearing, and wherein a cam ring is disposed between each O-ring and the ball bearing, each cam ring having a cam surface for abutting an outer surface of the ball-bearing, the arrangement being such that when the trunnion shaft moves out of concentric alignment with the bore, one of the cam rings moves towards its O-ring to compress the same, the arrangement being further such that the compressed O-ring expands after the biasing force has been neutralised to move the shaft back into concentric alignment with the bore.

3. A trunnion assembly according to claim 2 wherein the O-rings are each located in an O-ring retainer.

4. A trunnion assembly according to any one of claims 1 to 3 wherein the bearing assembly includes a toroidal-type roller bearing assembly.

5. A gun provided with a trunnion assembly according to claims 1 to 4.

6. A trunnion assembly substantially as herein described and as illustrated in the accompanying drawings.

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7. A gun provided with a trunnion assembly substantially as herein described and with reference to the accompanying drawings.

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